

IN THE SPECIFICATION:

Please replace paragraph [0001] with the following amended paragraph:

[0001] The present application is related to commonly-owned U.S. Pat. No. 6,519,603 issued February 11, 2003, entitled "Method And System For Organizing An Annotation Structure And For Querying Data And Annotations", commonly-owned, co-pending application 10/083,075 filed February 26, 2002, now U.S. Pat. No. 6,996,558 issued February 7, 2006, entitled "Application Portability And Extensibility Through Database Schema And Query Abstraction," and commonly owned, co-pending application 10/600,014 filed December 23, 2004, now pending, entitled "Universal Annotation Management System", which are herein incorporated by reference in their entirety as if completely set forth herein below.

Please replace paragraph [0006] with the following amended paragraph:

[0006] One challenge is that different types of annotations (i.e., containing different types of information) may be made depending on the type of data object being annotated. Using the examples above, annotations made on portions of a text document may include comments on the text, annotations made on experimental or genomic data may contain information regarding how the data was gathered, validity, or significance of the data. One approach to accommodate the entry of such a diverse group of annotations is to create annotation structures that each ~~contain~~ contains a set of fields corresponding to the information to be contained in a corresponding annotation. When a user selects a certain type of data object to be annotated, the user may be presented with an interface for entering annotation information based on fields contained in an annotation structure corresponding to selected type of data object.

Please replace paragraph [0034] with the following amended paragraph:

[0034] Storing the annotations 132 in the annotation store 130 may allow tacit knowledge to be captured about the data without modifying the data sources containing the data. It should be understood, however, that the annotation store 130 may actually

reside on the same system as the annotated data sources. In either case, the various application data 115 are enhanced with the opinions and evaluations of experts (e.g., chemists, biologists, and managers), and this supplementary knowledge is made available to others via the annotation system 111.

Please replace paragraph [0042] with the following amended paragraph:

[0042] Components of the server computer 104 may be physically arranged in a manner similar to those of the client computer 102. For example, the server computer 104 is shown generally comprising a CPU 135, a memory 133, and a storage device ~~[[134]]~~ 154, coupled to one another by a bus 136, which may all functions as similar components described with reference to the client computer 102. The server computer 104 is generally under the control of an operating system 138 (e.g., IBM OS/400®, UNIX, Microsoft Windows®, and the like) shown residing in memory 133.

Please replace paragraph [0043] with the following amended paragraph:

[0043] As illustrated, the server computer 104 may be configured with the annotation server 140, also shown residing in memory 133. The annotation server 140 provides annotation clients (e.g., running on one or more client computers 102) with access to the annotation store 130, for example, via annotation API functions. In other words, the annotation API functions generally ~~defines~~ define the interface between annotation clients and the annotation server 140. As used herein, the term annotation client generally refers to any user interface (or other type front-end logic) of the annotation system that communicates with the annotation server to manipulate (e.g., create, update, read and query) annotation data. Examples of annotation clients include applications 120 communicating with the annotation server 140 (directly, or via plug-in components 122) and an annotation browser 126.

Please replace paragraph [0046] with the following amended paragraph:

[0046] For some embodiments, the annotation server 140, and various related components, may be configured via a set of administrative tools 144. For example, the

tools 144 may be used to generate configuration data 145 accessed by the annotation server 140. As illustrated, the configuration data 145 may include various configuration files 148, a data source definition file [[148]] 146 which may contain various information, such as identification of a set of annotation structures (or templates) 149 for use in displaying and collecting annotation information, the various annotatable data source types and indexing thereof, the roles in which users may operate, and other defining information which may affect operation of the annotation server 140. As will be described in greater detail below, the annotation structures 149 may contain a set of fields and groups of fields that determine what data is stored with the annotation and what data is presented to a user viewing the annotation, for example, based on the user's role.

Please replace paragraph [0052] with the following amended paragraph:

[0052] As [[user]] used herein, the term point may generally refer to any identifiable data unit (or group of data units) capable of being annotated. Examples of annotatable points include, but are not limited to, database tables, rows, columns, cells, or groups of cells, selected portions of a text document (e.g., defined by an offset and length, start and stop locations, or any other suitable defining information), and the like. Multiple points in an object may be referenced by the same annotation and any point in an object may be referenced by multiple annotations. Further, as indicated by the dashed arrow from the index table 134 in FIG. 3, an annotation may reference points in more than one annotatable data source 117. For some embodiments, additional points may be associated with an annotation, for example, via the annotation API 142, in effect propagating the annotation to the additional points.

Please replace paragraph [0055] with the following amended paragraph:

[0055] Data sources are typically arranged as "granular" hierarchical structures of different "levels" of data objects, each of which may be annotated for different reasons. For example, a database table may be annotated to explain why it was created (its purpose), a database column may be annotated to clarify what type of data is stored

therein, a database row may be annotated to comment on a particular set of data (e.g., all related to a common patient), while a database cell may be annotated to comment on the significance of a particular value stored therein (e.g., an alarmingly high test result). In general, higher level data objects may be identified by indexes with fewer column values than indexes for lower level data objects (which may be regarded as sub-objects of the higher level data objects). Examples of suitable techniques for indexing a variety of different type data objects are described in detail in a commonly owned co-pending application 10/600,382 now pending, entitled "Heterogeneous Multi-Level Extendable Indexing For General Purpose Annotation Systems," filed June 20, 2003, hereby incorporated by reference.

Please replace paragraph [0057] with the following amended paragraph:

[0057] Prior to performing the operations 400, however, the administrator may need to gather a variety of information used to determine how the annotation system should be configured (e.g., what data should be allowed to be annotated and what type of information should be captured as annotations). This data gathering may be considered a precursor to actually configuring the annotation system, for example, with the goal of limiting the annotation system to supporting annotations on data for which the annotations are likely to be beneficial. In case the administrator is not too familiar with the system in which the annotation system is to be deployed, a domain expert, as well as another type consultant (e.g., a service provider in the business of installing annotation systems), may be consulted to ensure proper considerations are taken prior to configuring the annotation system.

Please replace paragraph [0066] with the following amended paragraph:

[0066] FIG. 4C illustrates a table 460 that lists exemplary annotatable points for an exemplary set of data source types. Illustratively, the exemplary set of data source types includes relational data sources, such as database tables and spreadsheets, word documents, HTML files, Spotfire files, and PDF files. However, there is no limit to the data source types and annotatable points that may be supported, and the exact number

and type supported may vary with different embodiments. The Meta Information column indicates information that may uniquely identify the corresponding annotatable point. While not shown, groups of more than one annotatable ~~points~~ point may also be annotated.